



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**(H916995) {UNASSIGNED}**  
Machine Id  
**913017**  
Component  
**Front Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (40 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0127791</b>	GFL0098986	GFL0098915
Sample Date		Client Info		<b>09 Jul 2024</b>	18 Jun 2024	03 Jun 2024
Machine Age	hrs	Client Info		<b>5014</b>	4829	4748
Oil Age	hrs	Client Info		<b>4829</b>	4829	4050
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>15</b>	26	20
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	2	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	5	4
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	5	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	3	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

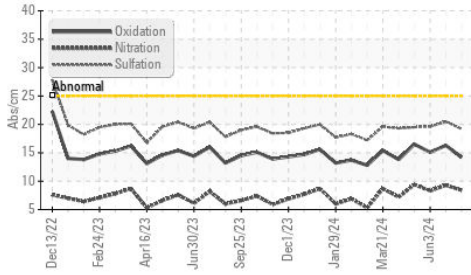
Silicon	ppm	ASTM D5185m	>25	<b>3</b>	8	8
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	9	3
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.8</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.4</b>	9.3	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	20.5	19.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

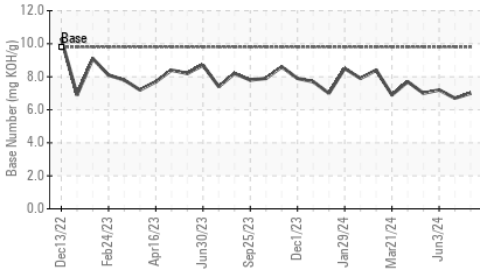
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Boron	ppm	ASTM D5185m	0	<b>1</b>	<1	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	60	<b>54</b>	61	58
Manganese	ppm	ASTM D5185m	0	<b>0</b>	1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>907</b>	949	894
Calcium	ppm	ASTM D5185m	1070	<b>1024</b>	1103	1070
Phosphorus	ppm	ASTM D5185m	1150	<b>982</b>	1021	915
Zinc	ppm	ASTM D5185m	1270	<b>1242</b>	1253	1177
Sulfur	ppm	ASTM D5185m	2060	<b>3426</b>	2893	2992
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.2</b>	16.3	15.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.0</b>	6.7	7.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	13.7	13.7

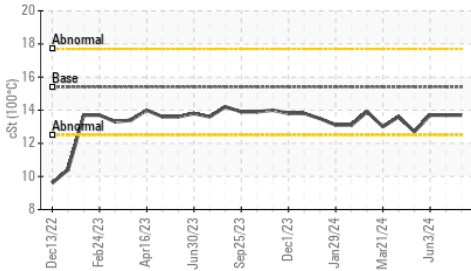
**FT-IR (Direct Trend)**



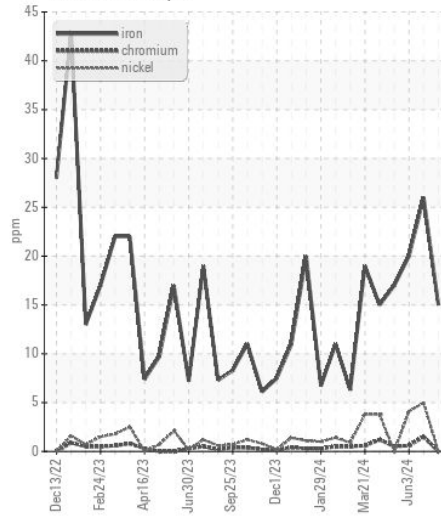
**Base Number**



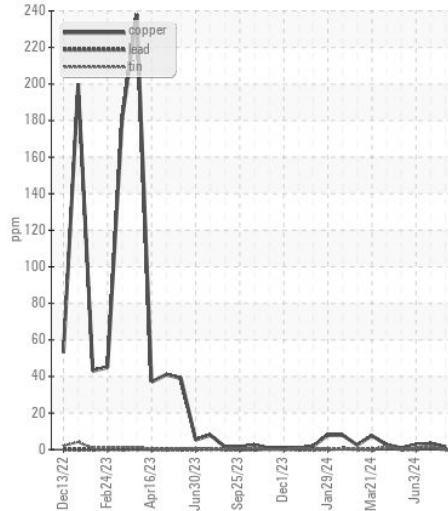
**Viscosity @ 100°C**



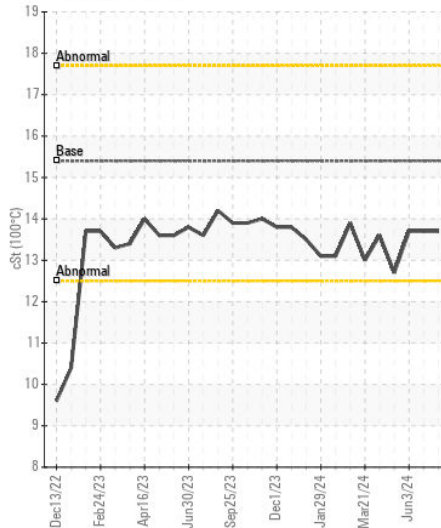
**Ferrous Alloys**



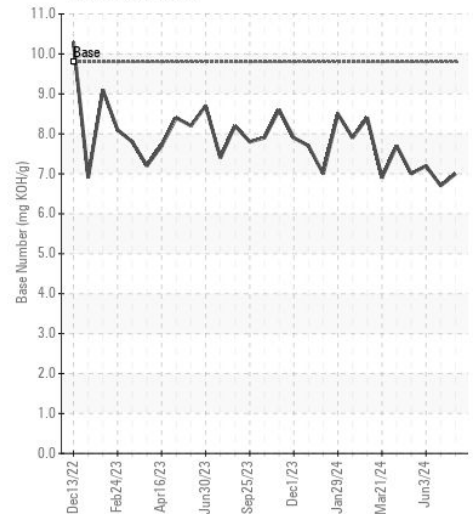
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0127791  
**Lab Number** : 06240055  
**Unique Number** : 11128889  
**Test Package** : FLEET

**Received** : 18 Jul 2024  
**Tested** : 19 Jul 2024  
**Diagnosed** : 19 Jul 2024 - Wes Davis

**GFL Environmental - 084 - Clarksville**  
 699 Jack Miller Boulevard  
 Clarksville, TN  
 US 37042

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)